

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:	)	<b>Prior Application</b>
DUVALL, et al.	)	Serial No.: 10/123,324
	)	Examiner: D. Truong
	)	Filed: April 16, 2002
	)	Art Unit: 1711
For: <b>METHOD OF FORMING A</b>	)	
<b>PHASE CHANGE THERMAL</b>	)	
<b>INTERFACE MATERIAL (New)</b>	)	
	)	
Filed: Herewith	)	
	)	
Attorney Docket No.:	)	Cleveland, OH 44114
FLCZ 2 00288-2-1	)	January 20, 2004

**INFORMATION DISCLOSURE STATEMENT**

**Mail Stop – Patent Application**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 C.F.R. §§ 1.56, 1.97, 1.98 and MPEP § 609, applicants submit the following Disclosure Statement concerning art of which the applicants are aware. A copy of PTO-1449 is enclosed herewith.

This Information Disclosure Statement is not intended to constitute an admission that any patent, publication or other information referred to herein or submitted herewith is "prior art" for this invention unless specifically designated as such.

In accordance with the United States Patent and Trademark Office OG Notice dated 05 August 2003, waiving the requirement under 37 C.F.R. §1.98(a)(2)(i), for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003, Applicants have not enclosed copies of the cited U.S. patents with this Disclosure.

In accordance with 37 C.F.R. §1.97(g) and (h), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. §1.56(b) exists.

Under § 1.98(a)(3), no concise explanation of relevance is required for information that is in the English language. Accordingly, the enclosed require(s) no further explanation (or no translation is available).

Consideration of the appropriate paragraph(s) indicated below is respectfully requested:

☒ **WITHIN THREE MONTHS OF FILING:** Under § 1.97(b)(1), this Information Disclosure Statement is being filed within three months of the filing date of the application. Although it is believed no fee is necessary, any deficiency in fees should be charged to Deposit Account No. 06-0308.

☐ **BEFORE FIRST OFFICE ACTION:** Under § 1.97(b)(3), this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. Although it is believed no fee is necessary, any deficiency in fees should be charged to Deposit Account No. 06-0308.

☐ **INTERNATIONAL SEARCH REPORT:** Under § 1.97(e)(1), the undersigned certifies that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. Although it is believed no fee is necessary, any deficiency in fees should be charged to Deposit Account No. 06-0308.

☐ **BEFORE FINAL ACTION/WITH FEE:** Under § 1.97(c)(2), this information shall be considered if filed before the mailing date of a final action if accompanied by a fee in the amount of \$180.00 as required by §1.17(p). Accordingly, the necessary fee accompanies this Information Disclosure Statement. Any overpayment or deficiency can be charged to Deposit Account No. 06-0308.

☒ **PRIORITY CLAIM:** The attached PTO 1449 Form includes all patents, publications, or other information previously cited by or submitted to the Office in one or more prior applications from which the present application claims priority. These one or more prior applications are identified in the papers accompanying the filing of this application. In accordance with § 609 MPEP, only copies of art not previously submitted are enclosed.

It is respectfully requested that the attached document(s) be considered and officially cited in examination of this application.

Respectfully submitted,

**FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP**

Date

January 20, 2004

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**CERTIFICATE OF EXPRESS MAILING UNDER 37 CFR 1.10**

EXPRESS MAIL LABEL NO.: EL 998013442 US

DATE OF DEPOSIT: 21 JANUARY 2004

I hereby certify that this Continuation Application Transmittal Letter and the documents referred to as attached therein are being deposited with the United States Postal Service "Express Mail Post Office To Addressee" service under 37 C.F.R. 1.10 and is addressed to the Assistant Commissioner For Patents, Box Patent Application, Washington, D.C. 20231.

Cheryl M. Kobylinski  
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<b>Subst. Form PTO-1449</b>  <b>APPLICANTS' INFORMATION DISCLOSURE STATEMENT</b>	<b>Atty. Docket No.:</b> FLCZ 2 00288-2-1		<b>Serial No.:</b> Unknown	
	<b>Applicants:</b> DUVALL, et al.			
	<b>Filing Date:</b> Herewith		<b>Group:</b> Unknown	

**U.S. PATENT DOCUMENTS**

Initial*		Document No.	Date	Name	Class	Subcl.	Filing Date
	AA	6,054,198	April 25, 2000	Bunyan, et al.			
	AB	5,904,796	May 18, 1999	Freuler, et al.			
	AC	5,783,862	July 21, 1998	Deeney			
	AD	5,770,318	June 23, 1998	Friedman			
	AE	5,302,344	April 12, 1994	Perlman			
	AF	5,290,624	March 1, 1994	Bujard			
	AG	4,915,167	April 10, 1990	Altoz			
	AH	4,879,632	November 7, 1989	Yamamoto, et al.			
	AI	4,729,060	March 1, 1988	Yamamoto, et al.			
	AJ	4,722,960	February 2, 1988	Dunn, et al.			
	AK	4,685,987	August 11, 1987	Fick			
	AL	4,487,856	December 11, 1984	Anderson, et al.			
	AM	4,299,715	November 1, 1981	Whitfield, et al.			

**FOREIGN PATENT DOCUMENTS**

		Document No.	Date	Country	Class	Subcl.	Translation?
	AN	1-248551 (A)	October 4, 1989	Japan			Yes

**OTHER ART**

	AO	"Packaging Ideas", <u>Electronic Packaging &amp; Production</u> , September 1, 1995, page 32.
	AP	R.C. Miller, "Structure for Achieving Thermal Enhancement in a Semiconductor Package," <u>IBM Technical Disclosure Bulletin</u> , Vol. 23, No. 6, November 1980, page 2308.
	AQ	"Thermal Sponge," <u>IBM Technical Disclosure Bulletin</u> , Vol. 29, No. 11, April 1987, pages 4950-4951.
	AR	C. Biber, "Choosing a Heat Sink: Some Tips and Recommendations," <u>EDN</u> , October 12, 1995, pages 125-133.
	AS	J.G. Ameen, et al. "Dealing with the Heat," <u>Circuits &amp; Devices</u> , July 1998, pages 38-40.
	AT	R.J. Dombrowskas, et al., "Conduction Cooled Chip Module," <u>IBM Technical Disclosure Bulletin</u> , Vol. 14, No. 9, February 1972, page 2689.

Examiner:

Date Considered:

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Subst. Form PTO-1449</b>  <b>APPLICANTS' INFORMATION DISCLOSURE STATEMENT</b>	<b>Atty. Docket No.:</b> FLCZ 2 00288-2-1		<b>Serial No.:</b> Unknown	
	<b>Applicants:</b> DUVALL, et al.			
	<b>Filing Date:</b> Herewith		<b>Group:</b> Unknown	

**U.S. PATENT DOCUMENTS**

Initial*		Document No.	Date	Name	Class	Subcl.	Filing Date
	BA	5,737,187	April 7, 1998	Nguyen, et al.			
	BB	5,901,040	May 4, 1999	Cromwell, et al.			
	BC	5,930,115	July 27, 1999	Tracy, et al.			
	BD	5,679,457	October 21, 1997	Bergerson			
	BE						
	BF						
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	BJ						
	BK						
	BL						
	BM						

**FOREIGN PATENT DOCUMENTS**

		Document No.	Date	Country	Class	Subcl.	Translation?
	BN	EP 0 813 244 A2	June 12, 1997	Europe			
	BO	WO 97/41599	November 6, 1997	PCT			
	BP	WO 99/19909	April 22, 1999	PCT			
	BQ	EP 1 067 164 A1	July 7, 2000	Europe			

**OTHER ART**

	BO	
	BP	

Examiner:

Date Considered:

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